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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,797

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IBM 0116

8935

7590 06/11/2008  
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EXAMINER

TODD, GREGORY G

ART UNIT

PAPER NUMBER

2157

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/091,797	<b>Applicant(s)</b> FRUCHTMAN ET AL.	
	<b>Examiner</b> GREGORY G. TODD	<b>Art Unit</b> 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9-13,15-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9-13,15-17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to applicant's amendment filed 04 April 2008, of application filed, with the above serial number, on 06 March 2002 in which no claims have been amended. Claims 1-3, 5-7, 9-13, 15-17, and 19-24 are pending in the application.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-7, 9-13, 15-17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham et al (hereinafter "Dunham", 6,714,952) in view of Sutherland et al (hereinafter "Sutherland", 7,069,295).

As per claim 1, Dunham teaches a method of restoring data in a computer network system wherein a plurality of client systems have access to a storage pool coupled to an associated storage area network (SAN) (at least col. 3 line 66 - col. 4 line 11) comprising the steps of:

requesting a restore wherein each of said plurality of client systems participate in said restore (at least col. 10, lines 11-27; receiving request for data to be restored); and coordinating restoration of data stored in said storage pool by said plurality of client systems over a plurality of sessions (at least col. 11, lines 1-11; eg. incremental restores) using a storage management server comprising a plurality of data portions to be restored, an associated location of said plurality of data portions in said storage pool, and a status of whether an associated storage media for a data portion has been restored (at least col. 4, lines 1-11; col. 5 line 26- col. 6 line 34; catalogue having information on data stored in backup storage devices and backup/restore server) wherein an associated token and a client system participating in a restore gains access by use of said token (at least col. 5 line 63 - col. 6 line 11), tracks said plurality of data portions of said data as restored by said plurality of client systems using the status (at least col. 10, lines 11-59; col. 5, lines 63-67; col. 9, lines 30-53; determining appropriate data to be restored according to system/ metadata/ catalogue, and cleaning up/ de-allocation).

Dunham fails to explicitly teach constructing a master restore table which blocks access by said client systems to each of said plurality of data portions that have been restored by one of said plurality of client systems in response to a processed status to avoid duplicative restoration efforts, wherein the plurality of client systems restore data portions to a single client. However, the use and advantages for using such a system is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Sutherland. Sutherland teaches a peer-to-peer enterprise storage

system wherein data is backed up/ replicated and accordingly restored among a replication group of clients (at least col. 6:35-52) with a storage coordinator maintaining a locker management table for a group (at least col. 11:42-67) and employing file locking for appropriate concurrent access and status tracking (at least col. 15:58-16:22). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the use of Sutherland's system with Dunham as all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results as both references teach features that are directed to analogous art, client data restoration and backup, thus suggesting an expectation of success.

As per Claim 2, wherein said coordinating access step occurs during a plurality of sessions (at least col. 8, lines 10-33; eg. file-by-file basis).

As per Claim 3, wherein said coordinating access step is interruptible (at least col. 8, lines 10-33; col. 5, lines 35-42; eg. file-by-file basis/ scheduler).

As per Claim 5, wherein said storage pool comprises a plurality of storage devices and said associated location of said data portions includes a location in one of said storage devices (at least col. 4, lines 1-11; Fig. 1).

As per Claim 6, wherein said data portions are provided concurrently from said plurality of storage devices to a target restoration device (at least Fig. 1; col. 4, lines 1-11; eg. central backup/restore server through which all data goes).

As per Claim 7. Dunham doesn't explicitly teach a LAN-free path or a server-free path from a client to said storage pool. However, Sutherland teaches a peer-to-peer storage system wherein client groups store data enabling at least a server-free path from a client to a replication group of clients (at least col. 4:34-50; col. 6:54-65). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Dunham with Sutherland's system as Sutherland teaches the benefits of such a distributed storage system, such as bottlenecks at a centralized SAN (at least col. 2:1-20).

As per Claim 9, deleting master restore table after restoration of a target restoration device is complete (at least col. 10, lines 55-59).

As per Claim 10, wherein said constructing step further comprises automatically partitioning said plurality of data portions in said master restore table based on said associated location of said plurality of data portions in said storage pool (at least col. 4, lines 1-64; col. 5 line 35 - col. 6 line 34).

As per Claim 11, wherein said coordinating access step occurs before said master restore table is fully constructed (at least col. 4, lines 1-64; col. 5 line 35 - col. 6 line 34).

As per Claim 12. The method of claim 4, wherein said master restore table is saved in a storage management server, said storage management server coupled to said SAN (at least col. 3 line 66 - col. 4 line 11).

As per Claim 21. The method of claim 1, wherein the master restore table is partitioned into a plurality of sub-tables based on the locations of data portions (at least col. 10, lines 23-55; based on file system, using different restoration/catalogue for appropriate restore).

As per Claim 22. The method of claim 1, wherein the associated token comprises a sequence of bits that uniquely identifies the master restore table for a particular effort (at least col. 5 line 63 - col. 6 line 11; eg. metadata in catalogue).

Claims 13, 15-17, 19-20, and 23-24 do not add or define any additional limitations over claims 1-3, 5-7, 9-12, and 21-22 and therefore are rejected for similar reasons.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-3, 5-7, 9-13, 15-17, and 19-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newly cited Murphy et al, Jain et al, Sturms, Farber et al, Sonoda et al, and Cannon et al, in addition to previously cited Gamradt, Yamagami, Monday, Leppinen et al, Korn (col. 8 line 65 – col. 9 line 25; token usage), Hsiao et al, Cane et al, Sutton et al, Arakawa et al, Gill et al, Fletcher et al, Yao et al, and Kopper are cited for disclosing pertinent information related to the claimed invention. Applicants are

Art Unit: 2157

requested to consider the prior art reference for relevant teachings when responding to this office action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY G. TODD whose telephone number is (571)272-4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/ first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/G. G. T./  
Examiner, Art Unit 2157

/Ario Etienne/  
Supervisory Patent Examiner, Art Unit 2157